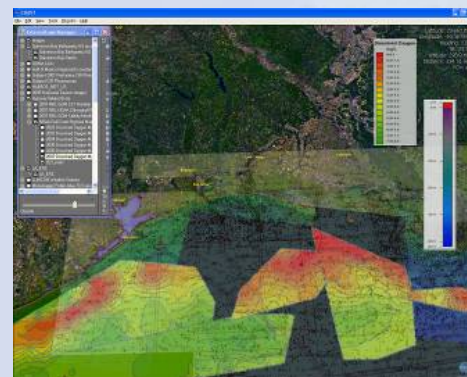


COAST: Coastal Online Assessment and Synthesis Tool

Purpose: Integration and visual analysis of coastal Gulf of Mexico datasets **End-User:** Coastal interest community

The Coastal Online Assessment and Synthesis Tool (COAST) geobrowser is being developed at NASA Stennis Space Center (SSC) to integrate previously disparate coastal data sets from NASA and other sources into a common desktop client tool that will provide insightful new data visualization and analysis capabilities for coastal researchers, managers, and residents. COAST enhances the capabilities of the immensely successful NASA open source 3D geobrowser, World Wind, developed at the NASA Ames Research Center.



Benefits Of An Open Source GeoBrowser ...

- *Free – core development is already paid for*
- *Extensible – install or develop functions that add value to you*
- *Worldwide developer community – new tools and support*

Why is it different?

- *Integrate your own data with other data sources and visualize the results*
- *Fuse different data types, such as spatial and spectral, for simultaneous visual analysis*
- *Visualize temporal changes in areas of interest*



Availability: Initial beta testing and first generation refinements are complete!

COAST 1.0.0 is available for download via the NASA SSC Coastal Program website, www.coastal.ssc.nasa.gov



Project Leads: Craig Peterson (NASA, Stennis Space Center), Ted Mason (NASA Stennis Space Center), and Richard Brown (SSAI, Stennis Space Center)

COAST 1.0.0

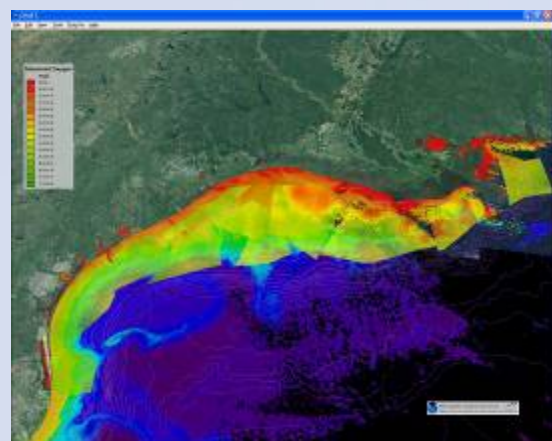
Built in Features

NASA/Other Data

- LandSat TM
- NASA Scientific Visualization Studio (GSFC)
- USGS Orthophotos
- Hi-resolution State Orthophotos (0.15 - 1 m)

Tools/Utilities (Built-in)

- KML Importer
- Temporal Visualization Tool (former NRL Monterey Animation tool)
- WMS Importer Tool (Servir-Viz Modified)
- Measure Tool
- Placefinder Tool
- External Layer Manager with transparency control (derived from Servir-Viz)



COAST 1.0.0

Opensource Community Developed Features

- Google KML/KMZ importer
- Shapefile Loader (disabled with WW 1.4 / SSC modifying)
- MODIS Historical Layers (needs minor mod)
- Rapid Fire MODIS (fire-flood-dust-smoke realtime mapping)
- Hurricane Katrina/Rita Pre/Post NOAA/COE aerial photography
- Image Overlay Tool (SSC modifying for more options)
- Image Layer Writer to create project layers (new - still in dev phase)



COAST 1.0.0

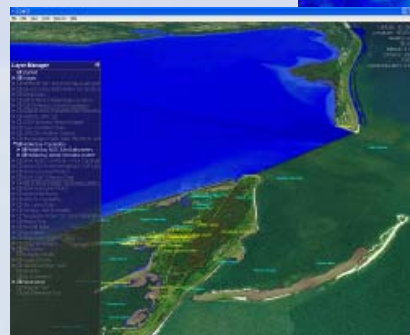
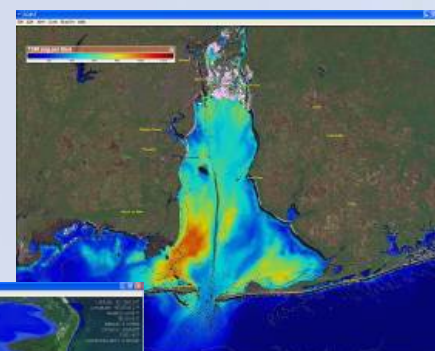
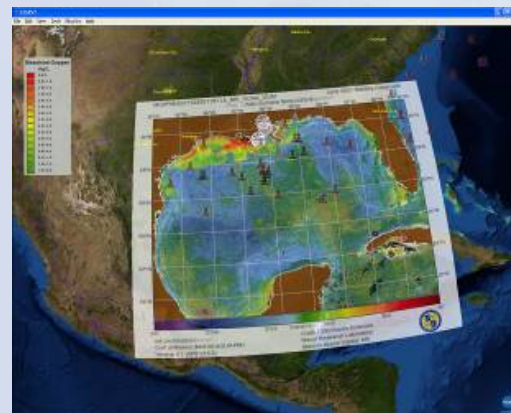
Completed Projects Drive Development

Integrated Approach to Monitoring Hypoxia Requirements

- Need ocean color data products access
- Need temporal visualization for change observation
- Need unmapped data from online repositories
- Need organization of data into “Project” layers

Regional Sediment Modeling Requirements

- Need higher res estuary / bay level data
- Need temporal visualization
- Need tighter shoreline georeference control with datum translation capability
- Shapefile import more valued for this level of data (in-situ data)





COAST 1.0.0

Data Accessed and Mapped within COAST

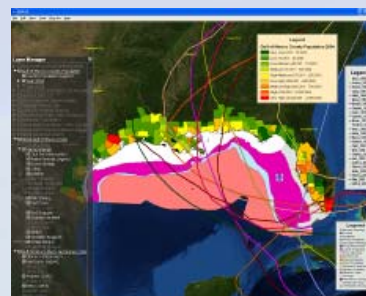
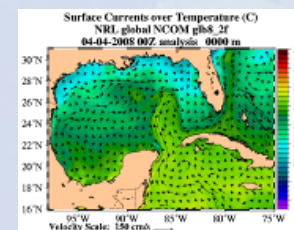
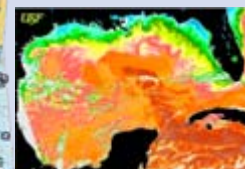
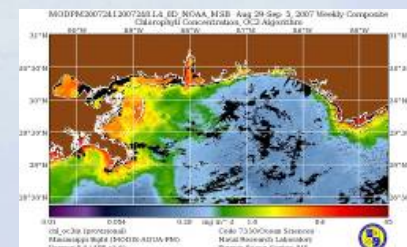
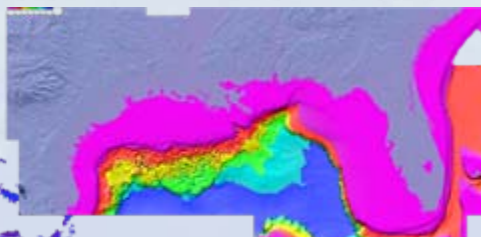
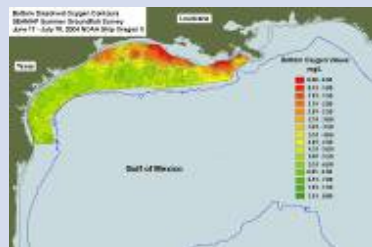
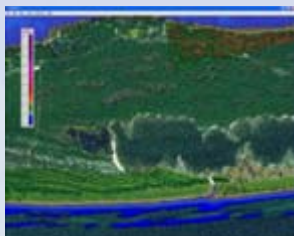
NOAA Satellite and Information Service
National Environmental Satellite, Data, and Information Service (NESDIS)



National Coastal Data
Development Center

GoMRC
Gulf of Mexico Regional Collaborative

USF



GO MAP